

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/038920

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D307/68 C07D409/04 C07D409/10 A61K31/381 A61P3/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BEILSTEIN Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WISE, A. ET AL.: "MOLECULAR IDENTIFICATION OF HIGH AND LOW AFFINITY RECEPTORS FOR NICOTINIC ACID" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 278, no. 11, 14 March 2003 (2003-03-14), pages 9869-9874, XP009011556 ISSN: 0021-9258 The whole document.</p> <p style="text-align: center;">----- -/--</p>	<p>1-11, 14, 17, 18, 21-48</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

13 July 2005

Date of mailing of the international search report

08.08.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Weisbrod, T

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JIRKOVSKY, I.; CAYEN, M. N.: "Hypolipidemic 4,5-Dihydro-4-oxo-5,5-disubstituted-2-fura necarboxylic Acids" J. MED. CHEM., vol. 25, no. 10, 1982, pages 1154-1156, XP002325393 Abstract; compounds 5b to 5d and 7b.	1-11,14, 17,18, 21-48
Y	WO 80/00025 A (AMERICAN HOME PROD CORP) 10 January 1980 (1980-01-10)  Abstract; claims 1-5, 7, 8, 11, 27, 28.	1-11,14, 17,18, 21-48
Y	US 4 244 958 A (JIRKOVSKY ET AL) 13 January 1981 (1981-01-13)  Abstract; claims 1-5, 7, 8, 11, 23, 26.	1-11,14, 17,18, 21-48
Y	KALLAI-SANFACON, M. A.: "Effect of AY-25,712 and Other Lipid-Lowering Agents on Liver Catalase and Liver Carnitine Acetyltransferase in Rats" PROC. SOC. EXP. BIOL. MED., vol. 173, 1983, pages 367-371, XP009046683 Page 367, paragraph 1.	1-11,14, 17,18, 21-48
P,Y	US 2004/142377 A1 (UNETT DAVID J 'US! ET AL) 22 July 2004 (2004-07-22)  Abstract; claims.	1-11,14, 17,18, 21-48
A	CAINE, D. S.; PAIGE, M. A.: "Reactions of a 3(2H)-Furanone Lithium Enolate with 4-Halocrotonates" SYNLETT, vol. 9, 1999, pages 1391-1394, XP001206137 Compounds 5a/5b.	1-48
A	MEISTER, H.; PEITSCHER, G.: "Reaktionsprodukte aus 3,5-Octadiin-2,7-diol" LIEBIGS ANN. CHEM., 1974, pages 1908-1914, XP009046694 Page 1909, compound 3.	1-48

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 27-37 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11, 17, 21-48 (all part) and 14, 18 (all complete)

Compounds (I) wherein R3 is aryl, substituted phenyl, 2-chlorophenyl, 3-chlorophenyl or naphthyl; and subject matter referring to such compounds (I).

- 1.1. claims: 1-5 and 23-48 (all part)

Compounds (I) wherein R3 is unsubstituted aryl and R4 is H; as well as subject matter referring to such compounds (I);

- 1.2. claims: 1-5, 6-10, and 22-48 (all part)

Compounds (I) wherein R3 is unsubstituted aryl and R4 is ethyl, n-propyl, C4-6alkyl or C1-6haloalkyl; as well as subject matter referring to such compounds (I);

- 1.3. claims: 1-11, 17, 21-48 (all part) and 14, 18 (all complete)

Compounds (I) wherein R3 is substituted aryl, substituted phenyl, 2-chlorophenyl, 3-chlorophenyl or naphthyl; as well as subject matter referring to such compounds (I).

2. claims: 1-11, 17, 21-48 (all part) and 16 (complete)

Compounds (I) wherein R3 is C3-7cycloalkyl or C3-7cycloalkenyl; as well as subject matter referring to such compounds (I).

3. claims: 1-11, 17, 21-48 (all part) and 12-13, 15, 19, 20 (all complete)

Compounds (I) wherein R3 is heteroaryl, C3-7heterocycloalkyl or C3-7heterocycloalkenyl; as well as subject matter referring to such compounds (I).

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Information on patent family members

International Application No  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 8000025	A	10-01-1980	US 4169202 A 25-09-1979
			AT 1449 T 15-08-1982
			AU 537177 B2 14-06-1984
			AU 4689279 A 13-12-1979
			CA 1118777 A1 23-02-1982
			CY 1305 A 06-12-1985
			DE 2963526 D1 07-10-1982
			DK 37580 A ,B, 29-01-1980
			EP 0006305 A1 09-01-1980
			ES 8100283 A1 16-01-1981
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			JP 55500473 T 31-07-1980
			KE 3555 A 30-08-1985
			MY 27786 A 31-12-1986
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			WO 8000025 A1 10-01-1980
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